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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/680,743	10/07/2003	Yoshinori Ichishi	4041J-000784	5359

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EXAMINER	
FORD, JOHN K	

ART UNIT	PAPER NUMBER
3753	

DATE MAILED: 05/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	**Application No.** 10/680,743	**Applicant(s)** ICHISHI ET AL.	
	Examiner John K. Ford	**Art Unit** 3753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on 2/16/06

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-5, 8-10, 12-19, 21 and 22 is/are pending in the application.

4a) Of the above claim(s) 2, 3, 10, 17-19, 21 and 22 is/are withdrawn from consideration.

5)☐ Claim(s) , _____ is/are allowed.

6)☒ Claim(s) 1, 4, 5, 8, 9, 12, 14, 15, 13 + 16 is/are rejected.

7)☒ Claim(s) 13+16 is/are objected to (when 112 problems corrected)

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 10/7/03 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 10/7/03

4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

Applicant's response of February 16, 2006 has been carefully considered. Applicant's election of Group II, claims 1-5, 8-10 and 12-19, and the first species of Figures 1B-5, claims 1, 4, 5, 8, 9 and 12-16, both without traverse, is acknowledged. An action on the merits as to claims 1, 4, 5, 8, 9 and 12-16 follows.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 4, 5, 8, 9 and 12-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In the claims, it is unclear what the term "non-contact" is supposed to be limited to. Applicant's "non-contact" temperature sensor appears to be an infra-red type. An argument could be made, and will be made, provided applicant doesn't limit the term "non-contact" in some way, that the sensors of the prior art (specifically sensors 25 and 26 of Honda '845 and sensors 22a, 22b and 23 of Ito '525) are "non-contact" temperature sensors because they do not contact any surface (i.e. they are simply exposed to open air). Please limit the term non-contact in a way that will preclude the examiner's reading of this limitation more broadly than applicant has intended. In the rejections that follow the examiner has concentrated on the disclosed type of non-contact sensor.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1 and 9 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Schultz (USP 6,625,997).

In Schultz the blow opening is shown to the right of reference numeral 12 and another blow opening is shown at 70 (the downstream side of the evaporator 16). A non-contact sensor 68 senses the temperature of the blow opening shown at 70. The temperature of the air at the downstream side of the evaporator is controlled via a feedback system that modulates the compressor (30) output.

Claims 1, 9, 12, 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Honda '845 and/or Ito '525 in view of Schultz (6,625,997) and Tragiana (6,732,538).

Honda '845 and Ito '525 each show temperature sensors in the discharge outlets into the passenger compartment (specifically conventional air temperature sensors 25 and 26 of Honda '845 and sensors 22a, 22b and 23 of Ito '525). Schultz teaches the replacement of a conventional air temperature sensor on the evaporator with a non-contact infra-red temperature sensor to advantageously permit the sensing of the entire downstream surface area of the evaporator to be measured rather than just monitoring a finite point on the evaporator. Tragiana, in col. 6, lines 47-57 teaches the art recognized equivalence of infra-red (optical) and conventional temperature sensors in automotive air conditioning systems. In view of either or both of Schultz (6,625,997) and Tragiana (6,732,538), it would have been obvious to one of ordinary skill in the art to have replaced a conventional air temperature sensor (specifically conventional air temperature sensors 25 and 26 of Honda '845 and sensors 22a, 22b and 23 of Ito '525) with a non-contact infra-red temperature sensor to advantageously permit the sensing of the area, rather than at just one finite point, in hopes that it will be representative of the temperature across the entire area. Regarding claims 12, 14 and 15, Ito '525 teaches a defrost temperature sensor 22b in addition to the foot and vent temperature sensors that are shown by both Ito '525 and Honda '845. To have monitored all of the discharge (foot, vent and defrost) temperatures in the prior art with non-contact sensors would have been obvious to one of ordinary skill to improve occupant comfort.

Claims 4 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over any of the prior art as applied to claims 1 and 9 above, and further in view of Kawai '686 or Kawai '615.

Kawai '686 or Kawai '615, each teach "disturbance" systems for processing non-contact temperature sensor outputs to eliminate the problematic effect on the control system of very large temperature differences such as would be encountered when a cigarette or chilled beverage container is in the filed of view of the non-contact sensor. To have added such a "disturbance" ignoring system to the non-contact sensor signal processing of the prior art to assure comfort would have been obvious to one of ordinary skill in the art. Regarding claim 8, both references show multiple sensing surfaces for improved measurement an obvious advantage to have added to the prior art.

Claim 5 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over any of the prior art as applied to claim 1 above, and further in view of Kawai 6,397,615 or Kamiya 6,202,934.

Kawai '615 teaches the type of delay claimed. See Kawai '615, Figure 54, steps 4242 and 4272 and the description thereof. Similarly see Kamiya '934, claims 14 and 15. To have delayed the output of the temperature of the non-contact sensor until it correctly indicates the intended temperature would have been obvious to one of ordinary skill in the art to improve performance. Regarding claim 8, both references show multiple sensing surfaces for improved measurement an obvious advantage to have added to the prior art.

Claims 13 and 16 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication should be directed to John K. Ford at telephone number 571-272-4911.

John K. Ford
Primary Examiner